

# Work Order ID 85752

June-14-12 1:58:59 PM

**\*85752\***

Page 1

Item ID: D4148-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Crosstube Lug Assembly, Fwd

Start Date: 14/06/2012 Start Qty: 16.00

**\*16\***

Cust Item ID:

Required Date: 28/06/2012 Req'd Qty: 16.00

**\*16\***

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/14 Tooling:

Date:

Run Start **\*NR1\***

QC:

Date: SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D4148	D								
100		0.00							
<b>*100*</b>									
Small Fab	Memo	0.00							
Small Fab	1- Assemble as per dwg								
110	QC5- Inspect part completeness to step on W/O	0.00							
<b>*110*</b>									
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location: <u>468</u>	0.00							
<b>*120*</b>									
Packaging	Memo	0.00							
Packaging									

16x 12/07/19

DAS  
16  
9-89 17/07/20

tlb

16 12/17/2020

**Work Order ID 85752**

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**\*85752\***

Page 2

Item ID: D4148-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

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Item Name: Crosstube Lug Assembly, Fwd

Start Date: 14/06/2012 Start Qty: 16.00

**\*16\***

Cust Item ID:

Required Date: 28/06/2012 Req'd Qty: 16.00

**\*16\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00

**\*130\***

QC

Memo

0.00

Quality Control

12/7/24  
MLJ 12/07/23

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td style="width: 25%;">Skid-tube <input type="checkbox"/></td> <td style="width: 25%;">Crosstube <input type="checkbox"/></td> <td style="width: 25%;">Prod. Eng. Coord. <input type="checkbox"/></td> <td style="width: 25%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>																
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unauthorized <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>Hardware</b> <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong  <b>Drill Holes</b> <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many	<b>General</b> <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing	<input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material  <input type="checkbox"/> Set-up <input type="checkbox"/> Supplier <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other _____ _____ _____
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# Picklist Print

June-14-12 1:59:02 PM

Page 1

Work Order ID: 85752

**\*85752\***

Parent Item: D4148-041

**\*D4148-041\***

Parent Item Name: Crosstube Lug Assembly, Fwd

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 16.00

Required Qty: 16.00

## Comments:

IPP Rev:A 10.06.24 new issue DD verf:EC

IPP Rev:B 10.07.22 as per revB DD verf:JLM

10.10.29 as per revC DD verf:EC

AS PER DWG REV.D DD VERF:EC

IPP Rev:C

IPP REV:D 11.03.02

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21043-3

Purchased

No

100

Each

1,361.000

4

32

**\*MS21043-3\***

Nut

\*\*

### Location

### Loc Qty

### Loc Code

FG

72

103691

72

ST301

1289

118077

2

118614

51

118686

30

119758

20

121255

230

121708

956

32

MS21043-4

Purchased

No

100

Each

1,156.000

1

48

**\*MS21043-4\***

Nut

\*\*

### Location

### Loc Qty

### Loc Code

FG

40

104603

40

ST301

1116

119546

119

121162

497

121652

500

48

# Picklist Print

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Page 2

Work Order ID: 85752

\*85752\*

Parent Item: D4148-041

\*D4148-041\*

Parent Item Name: Crosstube Lug Assembly, Fwd

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 16.00

Required Qty: 16.00

D2690-6

Manufactured No

100 Each

12.0000 1 16

\*D2690-6\*

Lanyard Assembly

\*\*

Location

Loc Qty

Loc Code

ST014

12

83360

12

D3910-1

Manufactured No

100 Each

31.0000 1 16

\*D3910-1\*

Crosstube Lug

\*\*

Location

Loc Qty

Loc Code

st507

31

81474

2

81573

29

D4091-1

Manufactured No

100 Each

66.0000 1 16

\*D4091-1\*

Mounting Lug

\*\*

Location

Loc Qty

Loc Code

ST458

66

81168

26

81575

40

D4148-1

Manufactured No

100 Each

10.0000 2 32

\*D4148-1\*

Crosstube Lug Plate, Fwd

\*\*

Location

Loc Qty

Loc Code

ST101

10

83421

10

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Shop Packet Print

Page 2

# Picklist Print

June-14-12 1:59:02 PM

Page 3

Work Order ID: 85752

Parent Item: D4148-041

Parent Item Name: Crosstube Lug Assembly, Fwd

\*85752\*

\*D4148-041\*

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 16.00

Required Qty: 16.00

D4148-3 Manufactured No

\*D4148-3\*

Stud Receiver, Lower

100 Each 4.0000 1 16

\*\*

Location

Loc Qty

Loc Code

ST101

4

83356

4

D4148-5 Manufactured No

\*D4148-5\*

Eyebolt Stud

100 Each 9.0000 1 16

\*\*

Location

Loc Qty

Loc Code

ST102

9

84196

9

AN3C12A Purchased No

\*AN3C12A\*

Bolts

100 Each 225.0000 2 32

\*\*

Location

Loc Qty

Loc Code

GA

38

120449

38

ST351

187

117514

4

118112

5

118451

22

119510

1

120423

51

121259

4

121584

50

121689

50

EP 12/07/17  
B85620 (70)  
B85754 (90)  
EP 12/07/17  
B85758 (160)  
EP 12/07/17  
32

# Picklist Print

June-14-12 1:59:02 PM

Page 4

Work Order ID: 85752

Parent Item: D4148-041

Parent Item Name: Crosstube Lug Assembly, Fwd

\*85752\*

\*D4148-041\*

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 16.00

Required Qty: 16.00

AN4C13A Purchased No  
\*AN4C13A\*  
BOLT

100 Each 48.0000 3 48

\*\*

*Handwritten:* 12/07/17

Location

Loc Qty

Loc Code

ST357

48

120187

1

121827

47

*Handwritten:* M122416 (48x)

MS17984-C413 Purchased No  
\*MS17984-C413\*  
PIN, QUICK RELEASE

100 Each 19.0000 1 16

\*\*

*Handwritten:* 12/07/17

Location

Loc Qty

Loc Code

ST315

3

114340

1

118612

2

ST333

16

121350

16

*Handwritten:* M122452

*Handwritten:* M122141 (15x)

MS20615-4M18 Purchased No  
\*MS20615-4M18\*  
Rivet

100 Each 53.0000 8 128

\*\*

*Handwritten:* 12/07/17

Location

Loc Qty

Loc Code

322

3

121349

3

ST322

50

121444

50

*Handwritten:* M122141 (128x)

# Picklist Print

June-14-12 1:59:02 PM

Page 5

Work Order ID: 85752

**\*85752\***

Parent Item: D4148-041

**\*D4148-041\***

Parent Item Name: Crosstube Lug Assembly, Fwd

Start Date: 14/06/2012

Required Date: 28/06/2012

Start Qty: 16.00

Required Qty: 16.00

NAS1149C0332R

Purchased

No

100

Each

9,894.000

4

64

**\*NAS1149C0332R\***

Washer

\*\*

Location

Loc Qty

Loc Code

297

9892

122063

9892

ST298

2

121509

2

NAS1149C0432R

Purchased

No

100

Each

3,792.000

6

96

**\*NAS1149C0432R\***

Washer

\*\*

Location

Loc Qty

Loc Code

ST297

1070

117291

70

119124

1000

ST298

2722

121255

2722

*EP 12/07/17*

*64*

*EP 12/07/17*

*96*





NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

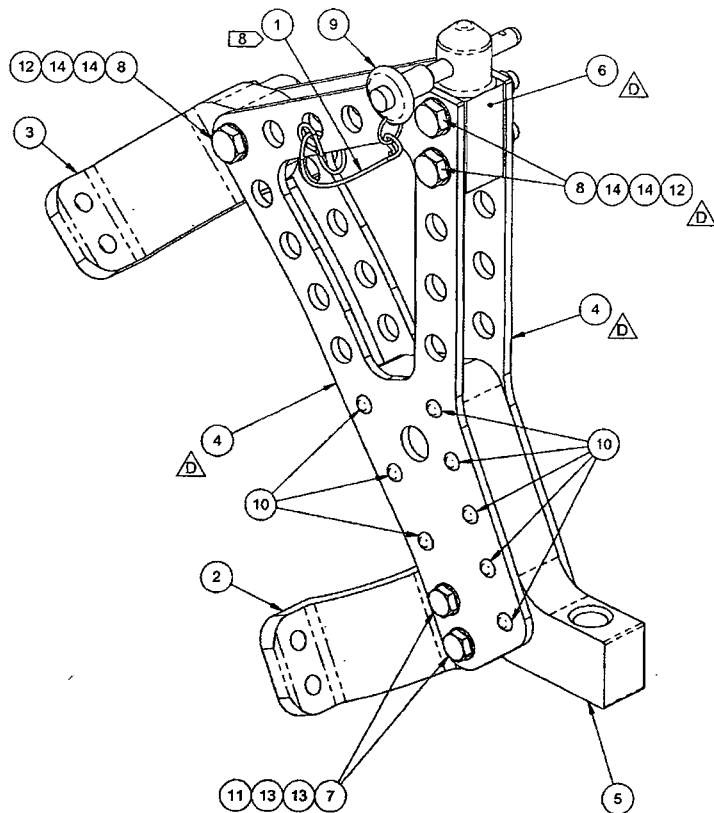
Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Supplier <input type="checkbox"/>																
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Other <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unauthorized <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending Passes Below Min <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimp at Bending <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Other <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Ripples on Inner Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>Hardware</b> <input type="checkbox"/> Breaking <input type="checkbox"/> Missing <input type="checkbox"/> Size/Length <input type="checkbox"/> Spinning <input type="checkbox"/> Threading <input type="checkbox"/> Wrong  <b>Drill Holes</b> <input type="checkbox"/> Misaligned <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Undersized <input type="checkbox"/> Too Many	<b>General</b> <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Documentation/Data <input type="checkbox"/> Finish <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Inspection Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Jigs/Fixtures/Tooling <input type="checkbox"/> Kit Incorrect <input type="checkbox"/> Kit Missing  <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Off-Set <input type="checkbox"/> Orientation Misread <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Lost <input type="checkbox"/> Part Moved <input type="checkbox"/> Raw Material
---	--	---

<input type="checkbox"/> Set-up
<input type="checkbox"/> Supplier
<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Weld
<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Other



**D4148-041 FWD X-TUBE LUG ASSY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4148-041" PER DART QSI 044 6.1
- 7) WEIGHT: 3.67 lbs
- 8) ATTACH D2690-6 TO D4148-1 BY LOOPING AROUND A LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 85752 MLJ  
12/06/14

ITEM	QTY	P/N	DESCRIPTION
	X	D4148-041	FWD X-TUBE LUG ASSY
1	1	D2690-6	LANYARD
2	1	D3910-1	X-TUBE LUG
3	1	D4091-1	MOUNTING LUG
4	2	D4148-1	FWD X-TUBE LUG PLATE
5	1	D4148-3	STUD RECEIVER LOWER
6	1	D4148-5	EYEBOLT STUD
7	2	AN3C12A	BOLT
8	3	AN4C13A	BOLT
9	1	MS17984-C413	PIP PIN
10	8	MS20615-4M18	RIVET
11	2	MS21043C3	NUT
12	3	MS21043C4	NUT
13	4	NAS1149C0332R	WASHER
14	6	NAS1149C0432R	WASHER

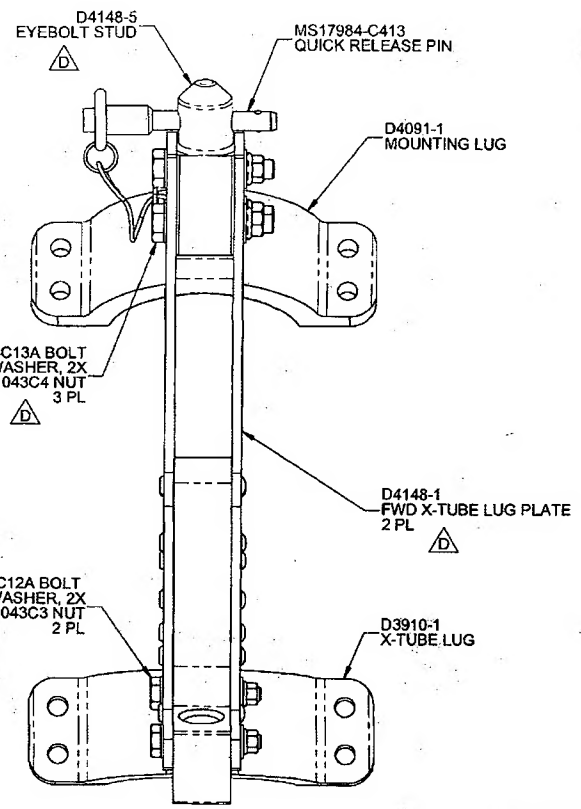
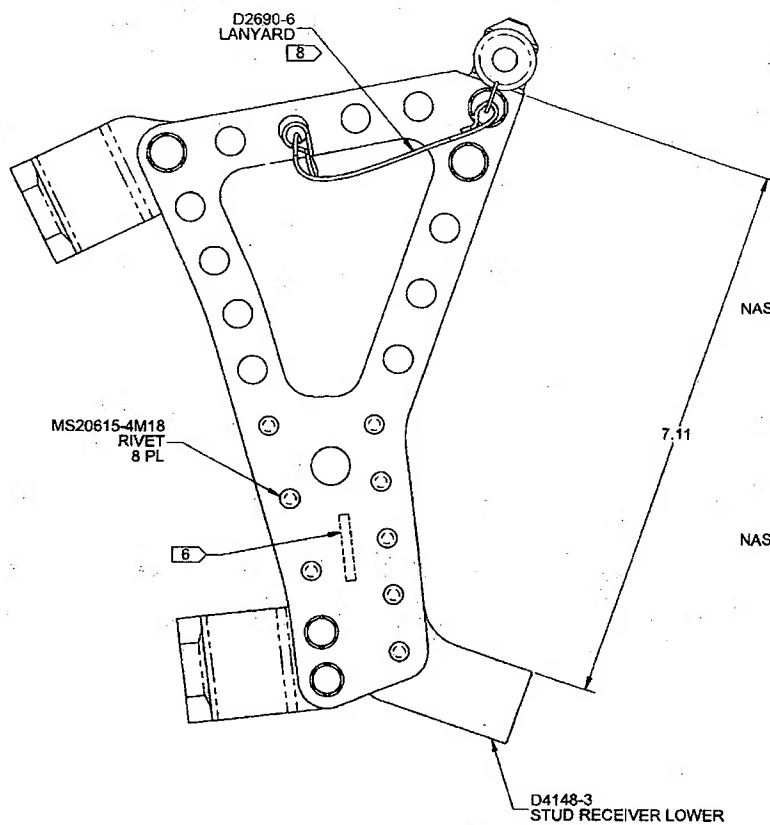
**RELEASED**  
2011-02-24

D	HOLE DIA CHANGED TO 0.252" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, C4-2)	SC	11.02.22
C	REDESIGNED D4148-1/3 TO ADDRESS COMPATIBILITY ISSUES WITH D350-591 SHORT STEPS	MB	10.10.12
B	REPLACED QTY(3) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, B7-2 & B4-2); MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); Ø0.129 3 PL (ZN D6-3); Ø0.129 7 PL WAS 10 PL (ZN A7-3); Ø0.191 WAS 0.129 (ZN C8-5); REASON: SEE TR-D350-607-2 REV. 8.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB		
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.02.22		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4148** REV. D  
SHEET 1 OF 5  
TITLE **FWD X-TUBE LUG ASSY** SCALE NTS

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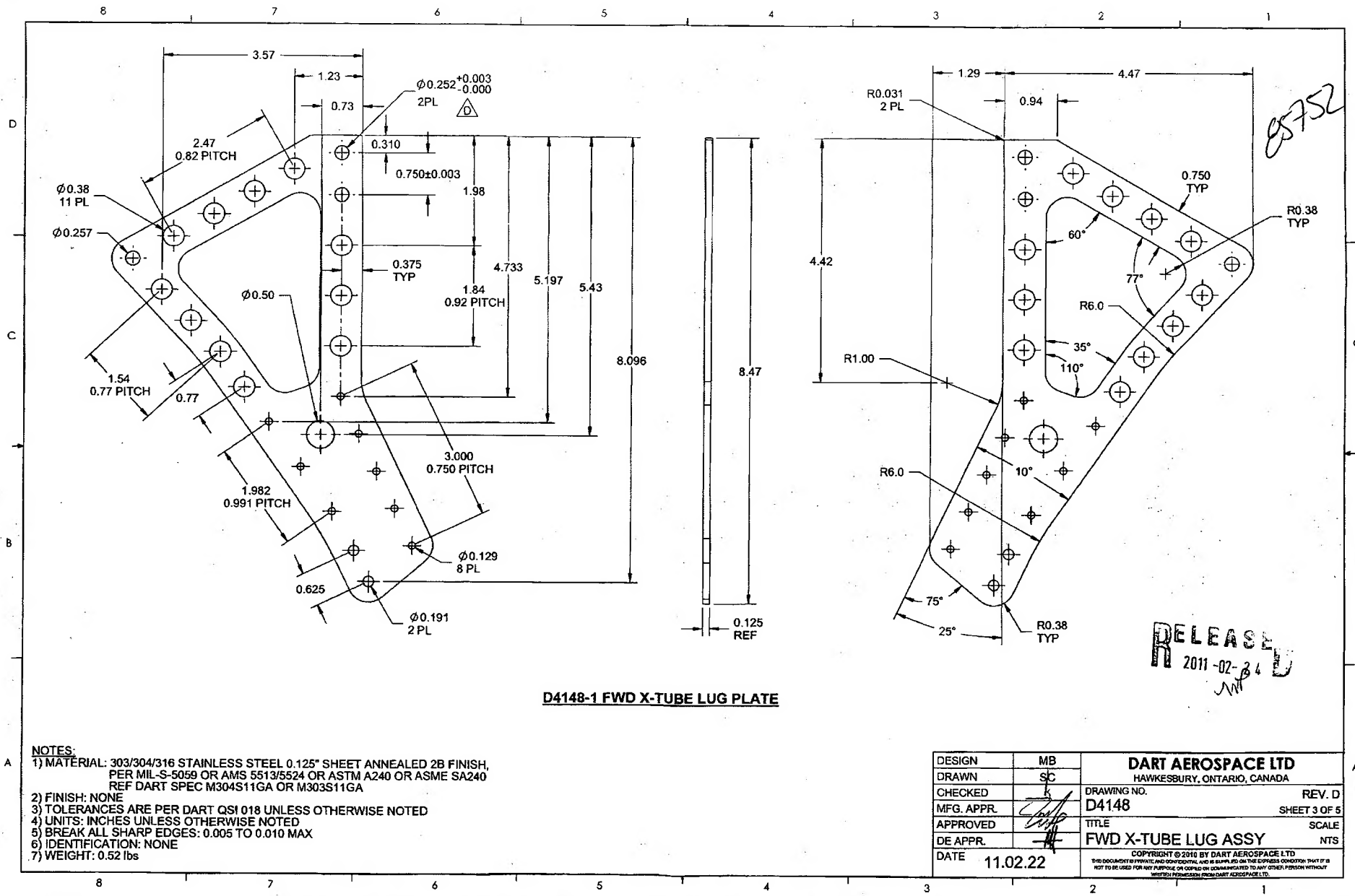


05752

RELEASED  
2011-02-24  
JMP



**D4148-041 FWD X-TUBE LUG ASSY**

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO. <b>D4148</b>	REV. D
MFG. APPR.			SHEET 2 OF 5
APPROVED		TITLE <b>FWD X-TUBE LUG ASSY</b>	SCALE NTS
DE APPR.		COPYRIGHT © 2010 BY DART AEROSPACE LTD	
DATE	11.02.22	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSE OR DISCLOSED OR COPIED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

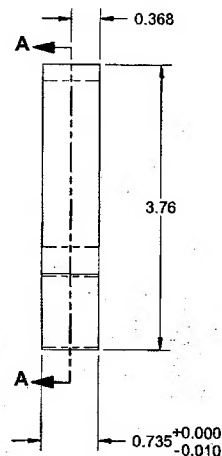


**D4148-1 FWD X-TUBE LUG PLATE**

- NOTES:**
- 1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA OR M303S11GA
  - 2) FINISH: NONE
  - 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.52 lbs

DESIGN	MB	<b>DART AEROSPACE LTD</b>	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		<b>D4148</b>	SHEET 3 OF 5
APPROVED		TITLE	SCALE
DE APPR.		<b>FWD X-TUBE LUG ASSY</b>	NTS
DATE	11.02.22	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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**RELEASE**  
2011-02-24




Technical drawing of a mechanical part, likely a propeller hub or similar component, showing a cross-section with various dimensions and features.

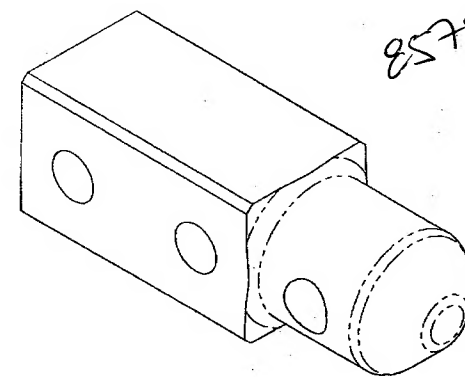
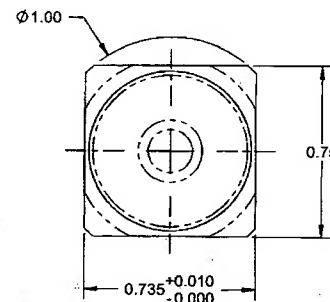
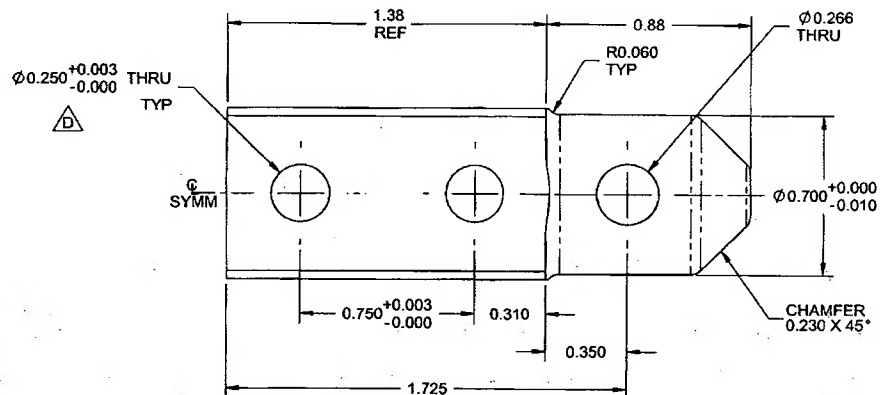
Key dimensions and features include:

- Top horizontal dimension: 2.12
- Top right corner radius: R0.38 TYP
- Top left hole diameter:  $\phi 0.453^{+0.010}_{-0.000}$
- Inner hole diameter:  $\phi 0.250$
- Top left feature: 0.06 X 45° CMF
- Top left radius: R6.0
- Top left angle: 9°
- Top left angle: 6°
- Top left radius: R0.031 2 PL
- Top left dimension: 0.80
- Top left dimension: 0.59
- Top left dimension: 0.89
- Top left angle: 65°
- Top left angle: 90°
- Top left dimension: 0.625
- Top left dimension: 1.97
- Top left dimension: 2.74
- Top left dimension: 3.27
- Top left dimension: 4.65

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2) FINISH: NONE  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: NONE  
7) WEIGHT: 1.52 lbs

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**D4148-5 EYEBOLT STUD**

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**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276  
REF DART SPEC M304B OR M303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.27 lbs

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